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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,279	04/21/2004	Tat Nin Lui	403057	6383
23548	7590	10/19/2005		
LEYDIG VOIT & MAYER, LTD 700 THIRTEENTH ST. NW SUITE 300 WASHINGTON, DC 20005-3960			EXAMINER PRESTON, ERIK D	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/828,279

Applicant(s)

LUI, TAT NIN

Examiner

Erik D. Preston

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 11 is objected to because of the following informalities: In the 2<sup>nd</sup> line of the claim, the phrase "...the side parts..." lacks proper antecedent basis and, for examination purposes, will be interpreted as saying "...the side parts..." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 & 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Armbruster et al. (GB 2050213).

With respect to claim 1 & 12, Armbruster teaches a power hand tool comprising: A body (Fig. 1, #101); an electric motor (Fig. 1, #111) located in the body and having a shaft (Fig. 1, #112) for driving a connector (Fig. 1, #121) for connecting and driving an implement, the motor having a metal motor casing (the segment of Fig. 1, #100 that directly surrounds the motor); an enclosure (the body (Fig. 1, #101) is also inherently an enclosure which offers some protection from the intrusion of liquids), enclosing the motor for protection against intrusion of a liquid, the enclosure including a thermally conductive enclosure part (Fig. 1, #100 in the area of the connector and the power cord) that is exposed outside of the body; and a thermal conductor (Fig. 1, #100 between the

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casing and the conductive enclosure part, and also between the casing and the power cord (Fig. 1, #104) in contact with the motor casing and the enclosure part for conducting heat from the motor to the enclosure part for heat dissipation (which it inherently does).

With respect to claim 2, Armbruster teaches the tool of claim 1, wherein the enclosure part is outside of the body.

With respect to claims 3 & 13, Armbruster teaches the tool of claims 1 & 2, wherein the enclosure has an opening that is closed by the enclosure part (the opening between the connector and the enclosure is closed by the enclosure part).

With respect to claim 4, Armbruster teaches the tool of claim 1, wherein the enclosure part is positioned in close proximity of the connector.

With respect to claim 5, Armbruster teaches the tool of claim 4, wherein the enclosure part has an apertured portion through which the connector extends from inside the enclosure (as seen in Fig. 1).

With respect to claim 6, Armbruster teaches the tool of claim 5, wherein the apertured portion is tubular and supports the connector for rotation (as can be seen in Fig. 1, there is no open area between the rotating connector and the apertured portion).

With respect to claim 7, Armbruster teaches the tool of claim 1, wherein the thermal conductor is in surface contact with an end wall of the motor casing (located at the rear bearing, Fig. 1, #113) through which the motor shaft projects.

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With respect to claim 10, Armbruster teaches the tool of claim 1, wherein the thermal connector has a central part in contact with the motor casing and opposite side parts in contact with the enclosure part.

With respect to claim 11, Armbruster teaches the tool of claim 10, further comprising a gearbox (as seen in Fig. 1) connected between the motor shaft and the connector, which is flanked by side parts of the thermal conductor.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armbruster et al. (GB 2050213). Armbruster teaches the tool of claim 1, but it does not teach that the thermal conductor is secured by screws to the motor casing, or that the thermal conductor is secured by screws to the enclosure part. However, screws were well known in the art at the time of the invention, and Armbruster teaches that the inner housing can be closed in any desired manner (Page 1, Lines 73-76). It would have been obvious to one of ordinary skill in the art at the time of the invention to use screws to close the inner housing because they provide a cheap, removable, and simple means for closing the inner housing of Armbruster.

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**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 2244406, US 2456571, US 2779883, US 3252020, US 3546502, US 3818255, US 4479555, US 4623810, US 6144121 & US 6671931.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erik D. Preston whose telephone number is 571-272-8393. The examiner can normally be reached on Monday through Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



10/04/2005

  
DARREN SCHUBERG  
SUPERVISORY PATENT EXAMINER  
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